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Buddy Garcia, *Commissioner*  
Carlos Rubinstein, *Commissioner*  
Mark R. Vickery, P.G., *Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

September 24, 2009

LaDonna Castañuela, Chief Clerk  
Texas Commission on Environmental Quality  
P.O. Box 13087, MC 105  
Austin, Texas 78711-3087

TEXAS  
COMMISSION  
ON ENVIRONMENTAL  
QUALITY  
2009 SEP 24 PM 4:23  
CHIEF CLERKS OFFICE

Re: Aspen Power LLC, Contested Case Hearing for Application for Air Permit No.  
81706, PSD-TX-1089, HAP12  
SOAH Docket #582-09-0636; TCEQ Docket # 2008-1145-AIR  
Executive Director's Reply to Aligned Protestants' Response to the  
Administrative Law Judge's Proposal for Decision and Order

Dear Ms. Castañuela:

Enclosed for filing please find the original plus seven copies of the Executive Director's Reply to Aligned Protestants' Response to the Administrative Law Judge's Proposal for Decision and Order for the contested case hearing listed above.

If you have any questions, please do not hesitate to call me at (512) 239-0891.

Sincerely,

A large, stylized handwritten signature in black ink, appearing to read "Amy Browning".

Amy L. Browning  
Staff Attorney  
Environmental Law Division

Enclosures

SOAH DOCKET NO. 582-09-0636  
TCEQ DOCKET NO. 2008-1145-AIR

APPLICATION OF  
ASPEN POWER, LLC  
FOR PROPOSED AIR PERMIT  
NOS. 81706, PSD-TX-1089, AND  
HAP12

§ BEFORE THE STATE OFFICE OF  
§  
§ ADMINISTRATIVE HEARINGS  
§

TEXAS  
COMMISSION  
ON ENVIRONMENTAL  
QUALITY  
2009 SEP 24 PM 4:23  
CHIEF CLERKS OFFICE

**EXECUTIVE DIRECTOR'S REPLY TO ALIGNED PROTESTANTS' RESPONSE TO  
THE ADMINISTRATIVE LAW JUDGE'S PROPOSAL FOR DECISION AND ORDER**

TO THE HONORABLE ADMINISTRATIVE LAW JUDGE SARAH G. RAMOS:

COMES NOW the Executive Director (ED) of the Texas Commission on Environmental Quality (TCEQ or Commission) and files the Executive Director's Reply to Aligned Protestants' Response to the Administrative Law Judge's Proposal for Decision and Order, and in support thereof shows the following:

**I. INTRODUCTION/BACKGROUND**

On April 23, 2007, Aspen Power, LLC (Aspen) submitted a new source review application to the Texas Commission on Environmental Quality (TCEQ) for State Air Quality Permit No. 81706 and Prevention of Significant Deterioration (PSD) Air Quality Permit No. PSD-TX-1089 which would authorize construction and operation of the Lufkin Generating Plant, a biomass fired electric generating facility in Lufkin, Texas.<sup>1</sup> This application was also accepted as the application for a case by case maximum achievable control technology (MACT) determination for Hazardous Air Pollutant (HAP) Permit 12. The hearing on the merits on the permit application was held on April 27 – 30 and May 8, 2009. The ALJ issued the proposal for

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<sup>1</sup> Applicant's Exhibit No. 5.

decision (PFD) for the permit on August 24, 2009, and exceptions and responses to the PFD were filed September 14, 2009.

The ED maintains his position that no new information was presented during the contested case hearing that would alter the conclusions of ED staff regarding BACT, MACT, demonstration of the NAAQS, and health effects review. Therefore, the Executive Director recommends issuance of Air Quality Permit 81706, PSD-TX-1089, and HAP12 to Aspen.

## **II. Startup, Shutdown, Maintenance**

Protestants contend that the draft permit for Aspen does not adequately address emissions from startup, shutdown, and maintenance (SSM) activities. In section IV.G. of the PFD the ALJ found that Special Condition 33 of Aspen's air permit and the work operational plan that it requires should provide adequate safeguards for the public during periods of SSM. The ALJ therefore did not make any recommendations for further requirements to control SSM. This is consistent with the ED's review of the permit and recommendations for control of SSM.<sup>2</sup>

## **III. BACT Definition**

Prior to issuing a permit for a facility that may emit air contaminants, the Texas Clean Air Act requires the Commission to find, inter alia, that the facility will employ "at least the best available control technology, considering the technical practicability and economic reasonableness of reducing or eliminating the emissions resulting from the facility...."<sup>3</sup> In reviewing an application, the permit reviewer, Mr. Richard Hughes, P.E., testified that BACT is

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<sup>2</sup> See Executive Director Exhibit ED – 15, at 6, Response 6; Special Condition 33 was added to the permit to ensure that Aspen would have an operational plan for SSM, and that emissions during SSM would be minimized.

<sup>3</sup> Tex. Health and Safety Code § 382.0518(b)(1).

evaluated based on the TCEQ's guidance document entitled "Evaluating Best Available Control Technology" which provides a three-tiered process for BACT Analysis.<sup>4</sup> This guidance document, admitted as Executive Director Exhibit ED-3, also explains how the permit reviewer evaluates the analysis submitted by the applicant to determine whether the facility satisfies the BACT requirements. Mr. Hughes also testified on cross-examination by the protestants to the equivalency of the EPA and TCEQ BACT review processes.<sup>5</sup> Both the protestants and the applicant made multiple references to EPA guidance documents for BACT review; however, as Mr. Hughes testified, TCEQ has an approved state implementation plan for the prevention of significant deterioration, which includes the BACT review process.<sup>6</sup> As a result of this, TCEQ follows its approved guidance in reviewing BACT.<sup>7</sup>

In their Response to the Proposal for Decision, the protestants refer to a recent EPA news release that announced EPA's intention to propose actions disapproving parts of the Texas air permitting program, including provisions of the Texas PSD and NSR permitting programs. Although EPA has recently published this proposal in the Federal Register, it has not yet taken final action on the permitting provisions in question; therefore, it is premature to discuss potential impacts of these EPA proposals.<sup>8</sup> At the time that this permit was reviewed, and at the time of the contested case hearing for this permit, the TCEQ definition of BACT and TCEQ's BACT guidance were the controlling authorities. Further, this has not changed as of the date of

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<sup>4</sup> Executive Director Exhibit ED - 1, 8:17-21.

<sup>5</sup> Tr. Vol. 5 680:9 - 19; Protestants' expert witness, Mr. William Powers, also testified to the equivalency of the TCEQ and EPA BACT review processes in Protestants' Exhibit 1, 7:16-28.

<sup>6</sup> Tr. Vol. 5, 689:16 - 691:13 and Executive Director Exhibit ED - 16.

<sup>7</sup> *Id.*

<sup>8</sup> 74 *Federal Register* 48450, 48463-64 (September 23, 2009).

this reply. As discussed above, TCEQ has an approved state implementation plan for the prevention of significant deterioration permitting program, including the BACT review process.<sup>9</sup> Therefore, TCEQ follows its approved guidance in reviewing BACT.<sup>10</sup>

#### IV. NO<sub>x</sub>

The protestants contend that the proper BACT emission limit for nitrogen oxides (NO<sub>x</sub>) should be 0.060 lb/MMBtu. A Tier I BACT analysis was conducted for Aspen; such an analysis requires comparison with other like facilities.<sup>11</sup> In this case, the following evidence reflects the thoroughness of Mr. Hughes's review of BACT and MACT: 1) Mr. Hughes's testimony documenting his review of the information Aspen submitted with its application, the RACT/BACT/LAER Clearinghouse, recently permitted facilities, and generally available public information on air pollution technology for biomass fired power plants;<sup>12</sup> 2) documentation in the Review Analysis and Technical Review, commonly referred to as the "Tech Review";<sup>13</sup> and 3) the documentation in the Preliminary Determination Summary.<sup>14</sup> Mr. Hughes's review of the BACT information submitted by Aspen concluded that the proper BACT emission limit for the permit is 0.15 lb/MMBtu. Mr. Hughes determined that this limit was consistent with BACT determinations from other similar sources identified from the RBLC and appropriately

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<sup>9</sup> Tr. Vol. 5, 689:16 – 691:13 and Executive Director Exhibit ED – 16.

<sup>10</sup> *Id.*

<sup>11</sup> Executive Director Exhibit ED – 3, p. 3.

<sup>12</sup> Executive Director Exhibit ED – 1, 10:21 – 11:12; Executive Director Exhibit ED – 1, 18:14 – 20:19; Tr. Vol. 5, 670:4 – 671:9, 673:13 – 678:13, 685:11 – 688:8.

<sup>13</sup> Executive Director Exhibit ED – 6.

<sup>14</sup> Executive Director Exhibit ED – 7.

represented BACT for Aspen.<sup>15</sup> Therefore, the evidence in the record substantiates the ED's review and concurrence that 0.15 lb/MMBtu constitutes BACT for NO<sub>x</sub>.

## V. CO

Protestants contend that the proper emission limit for carbon monoxide (CO) should be 0.075 lb/MMBtu, and that Aspen should be required to install an oxidation catalyst to meet this limit. In support of this argument the protestants offered the testimony of Mr. Bill Powers on the permits for the Russell, Bridgewater, and Whitefield plants. Mr. Powers' testimony reveals the Russell permit has a limit of 0.075 lb/MMBtu for CO, but the facility was not permitted until December 2008, four months after the permit for Aspen was originally issued.<sup>16</sup> Therefore, this permit could not have been considered by TCEQ staff during the review of the Aspen air permit. Mr. Powers did not testify to the CO emission limits for the Whitefield and Bridgewater facilities, but did confirm that the use of an oxidation catalyst at these two facilities is not required by their permits.<sup>17</sup>

The CO emission limit set by the ED for Aspen's air permit was set after a technical review of the permit application as required by TCEQ rules, and a case-by-case MACT review for hazardous air pollutants (HAP).<sup>18</sup> The technical review was complete at the time of the permit's original issuance in July 2008, and was conducted primarily by Mr. Hughes. As discussed above, Mr. Hughes considered facilities listed in the BACT analysis of the permit,

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<sup>15</sup> *Id.*

<sup>16</sup> Protestants' Exhibit 1, 22: 26-27; Protestants' Exhibit 7.

<sup>17</sup> Tr. Vol. 3, 402-403, and 406; Protestants' Exhibit 8; Protestants' Exhibit 9.

<sup>18</sup> Executive Director Exhibit ED - 1, 17-20.

searched the RACT/BACT/LAER clearinghouse (RBLC) for similar permitted sources, and considered the permit of the only other recently permitted biomass plant in Texas, Nacogdoches Power.<sup>19</sup> Upon reviewing the sources available at the time, Mr. Hughes concluded that the appropriate MACT limit for CO was 0.31 lb/MMBTU,<sup>20</sup> and an oxidation catalyst is unnecessary to meet that MACT limit.

## VI. VOC

The protestants contend that an appropriate BACT limit for VOCs would be 0.01 lb/MMBtu, instead of the 0.0215 lb/MMBtu included in the Aspen permit. Protestants also object to the raising of the limit from the original 0.017 lb/MMBtu proposed by Aspen to the 0.0215 lb/MMBtu that was eventually used in the permit. Protestants contend that there was no reason for this increase. However, the protestants' expert, Mr. Powers, admitted that it was plausible that this limit was increased to account for formaldehyde, which is not included in the AP-42 emission limit for VOCs.<sup>21</sup> Based on the review of the permit completed by Mr. Hughes, and the lack of credible alternatives presented by the protestants for a stricter VOC emission limit, the ED continues to recommend 0.0215 lb/MMBtu as the BACT emission limit for VOCs.

## VII. PM

The PM limit currently in the permit, 0.025 lb/MMBtu, is the limit for total PM (both filterable and condensable).<sup>22</sup> In section IV.E. of the PFD the ALJ states that the permit should

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<sup>19</sup> Executive Director Exhibit ED – 1, 18:26-37, Tr. Vol. 5, 675:3 – 678:13.

<sup>20</sup> Executive Director Exhibit ED – 1, 19:27-34.

<sup>21</sup> Tr. Vol. 4, 517:2-21.

<sup>22</sup> Executive Director Exhibit ED – 1, 19: 22-25.

be amended to specify that there is a limit for filterable PM of 0.013 lb/MMBtu. Given Mr. Hughes testimony that the limit already in the permit corresponds to 0.013 lb/MMBtu for filterable PM, the ED does not object to the ALJ's recommendation.

The protestants recommend that Aspen be required to utilize an ESP with an efficiency of at least 99.5% in order to meet their proposed PM limit of 0.012 lb/MMBtu. However, BACT is actually an emission limit and not a specific control technology or the rated efficiency of control technology.<sup>23</sup> BACT for filterable PM is 0.013 lb/MMBtu and Aspen has demonstrated it has the necessary controls to meet 0.013 lb/MMBtu without the necessity of altering its ESP.

#### **VIII. Non-mercury Metal HAPs**

Aspen proposed to use PM as a surrogate for the non-mercury metal HAPs that will be emitted from the facility. Protestants contend that Aspen should be required to meet a limit of 0.012 lb/MMBtu of filterable PM using an ESP with an efficiency of at least 99.5%. As discussed above for PM, the ED does not object to the addition of a filterable PM limit of *0.013 lb/MMBtu* to the permit, given Mr. Hughes testimony that the 0.025 lb/MMBtu limit currently in the permit for total PM corresponds to a limit of 0.013 lb/MMBtu for filterable PM,<sup>24</sup> with currently proposed controls. A requirement for an ESP with an efficiency of at least 99.5% is unnecessary.

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<sup>23</sup> Executive Director Exhibit ED – 1, 7:38 – 8:15.

<sup>24</sup> Executive Director Exhibit ED – 1, 19: 22-25.



## **IX. Organic HAPs**

The ED has proposed to use CO as a surrogate for organic HAP emissions for Aspen. The protestants contend that Aspen should use an oxidation catalyst to achieve CO emissions of less than 0.075 lb/MMBtu. As discussed above for CO, the evidence in the record substantiates the ED's determination that the appropriate MACT emission limit for CO is 0.31 lb/MMBTU. Therefore, the ED considers that a requirement for an oxidation catalyst is unnecessary.

## **X. Mercury**

Protestants state that TCEQ should specify an emission limit and proposed control for mercury in the Aspen air quality permit. The limit proposed by Aspen in the permit is 0.000003 lb/MMBtu, which is EPA's AP-42 emission factor for mercury in wood.<sup>25</sup> Aspen is only authorized to burn wood in its biomass facility;<sup>26</sup> therefore, its de facto limit for mercury is 0.000003 lb/MMBtu. The ED considers this limitation on fuel source for Aspen to be a sufficient limit and control for mercury emissions.

## **XI. Conclusion.**

Based on evidence admitted and disputed issues identified in the record, the Executive Director contends that all procedures and analysis required for an air permit review were followed in accordance with applicable rules and guidance established by the TCEQ. Therefore the TCEQ Executive Director stands by his preliminary decision to issue the Air Quality Permit Numbers 81706, PSD-TX-1089, HAP12 for Aspen Power, LLC.

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<sup>25</sup> Applicant's Exhibit No. 5, p. 53.

<sup>26</sup> Applicant's Exhibit No. 5, pp. 19-22.

**Executive Director's Reply to Aligned Protestants' Response to Administrative Law Judge's Proposal for Decision and Order**

**SOAH DOCKET NO. 582-09-0636**

**TCEQ DOCKET NO. 2008-1145-AIR**

**Page 9 of 10**

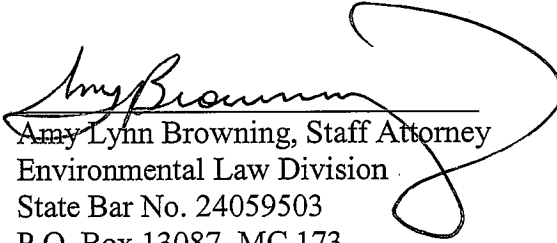
Respectfully submitted,

Texas Commission on Environmental Quality

Mark R. Vickery, P.G., Executive Director

Stephanie Bergeron Perdue, Deputy Director  
Office of Legal Services

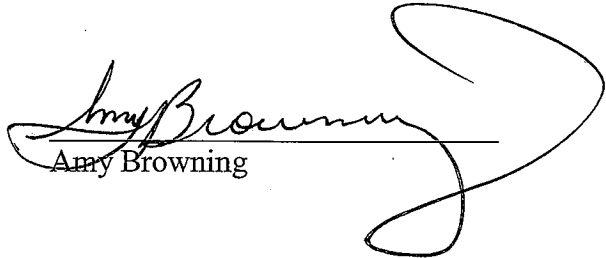
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REPRESENTING THE  
EXECUTIVE DIRECTOR OF THE  
TEXAS COMMISSION ON  
ENVIRONMENTAL QUALITY

**CERTIFICATE OF SERVICE**

On this 24<sup>th</sup> day of September, 2009, a true and correct copy of the foregoing instrument (TCEQ Executive Director's Reply to Aligned Protestants' Response to Administrative Law Judge's Proposal for Decision and Order) was served on all persons on the attached mailing list by the undersigned via deposit into the U.S. Mail, inter-agency mail, facsimile, electronic mail, or hand delivery.

  
Amy Browning

TEXAS  
COMMISSION  
ON ENVIRONMENTAL  
QUALITY  
2009 SEP 24 PM 4:23  
CHIEF CLERKS OFFICE

**Service List  
Aspen Power, LLC  
SOAH Docket No. 582-09-0636  
TCEQ Docket No. 2008-1145-AIR**

**FOR SOAH**

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